
9 Managing Risks

Managing risk is an integral part of the management of the highway asset. All activities from management, identification and prioritisation of works to the establishment of budgets have risks associated with them. Ideally, risks should be identified at each level of the management hierarchy (strategic, tactical and operational) using tools and procedures to identify critical risks and then manage them.

We have a jointly managed Highways risk register, with our term contractor Ringway. This feeds in to, and supplements the [Corporate Risk Policy](#) by identifying the tactical and operational risks encountered in the management of the highway asset.

The Objectives of Risk Management

Our strategic objectives for risk management are set out in our [Risk Strategy](#). In summary our objectives are:

- Better informed decision making
- Processes that identify and achieve successful local and national priority objectives
- Having a culture of well-measured risk taking, responding to risk in a balanced way, considering the level of risk, reward, impact and cost of control measures.
- Learning from where things have gone wrong to try and prevent it happening again.

Risk Management should promote the achievement of an appropriate balance between realising opportunities for gains whilst minimising losses and is an integral part of good management practice.

We have used a risk based process to determine our [safety inspection procedures](#). We use the Safety Inspection process, monitoring information and a regime of proactive maintenance to reduce risk and provide the public with a safer highway network.

We also use risk based processes to determine the inspection intervals for different classes of structures.

Over the next two years, GCC will be moving towards adoption of the recently published Code of Practice for Well Managed Highway Infrastructure – a new document produced by the United Kingdom Roads Liaison Group (UKRLG) which will replace all three of the existing individual asset codes by October 2018. We are also anticipating the imminent publication of a revised version of the document “Highways Risk and Liability Claims- A Practical Guide to Appendix C of the Roads Board report”. This is due for publication in early 2017. We have used the current version to develop our existing processes.

Categories of Risk

Strategic Risks – concern the long term, strategic objectives of the Council. Some of the key strategic risks which can affect the delivery of Highways Maintenance have been identified as:

- Funding Cuts
- Network Resilience
- Climate Change

The following do not appear on the corporate strategic risk register, because they are currently managed below the threshold for inclusion, but are considered key strategic risks which could impact on Highways Maintenance

- Aging Infrastructure
- Future Demand

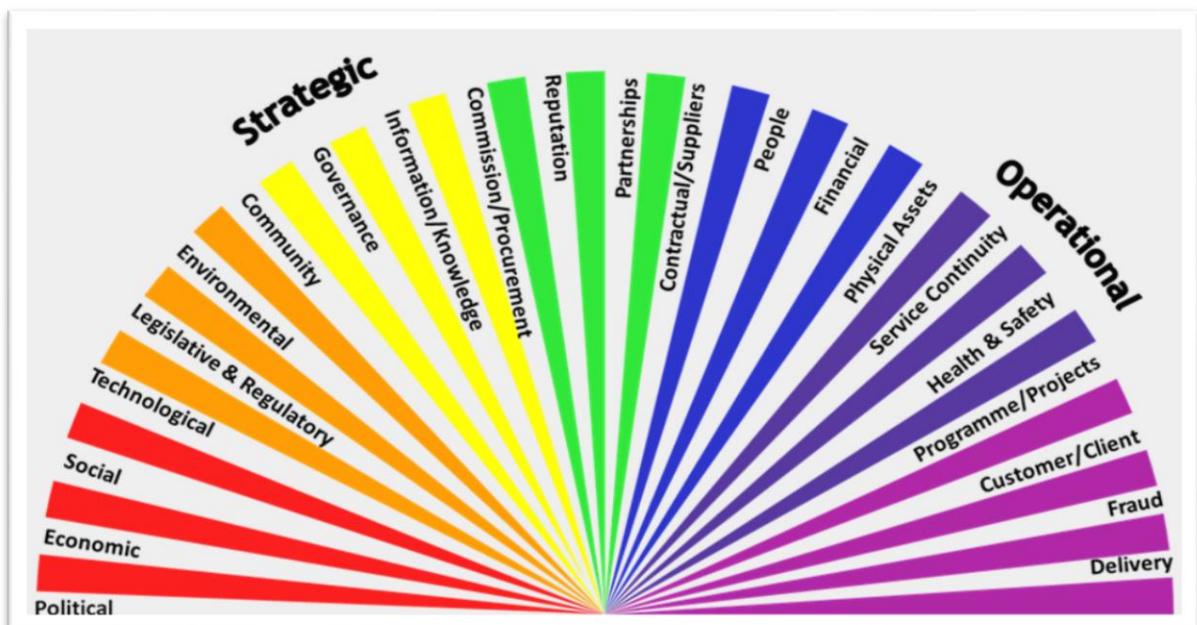
Operational Risks – concern the day to day issues around delivery of the Council's services. Operational risks can affect the delivery of Highways Maintenance in the following areas

- Health and Safety
- Programming
- Budget management
- Supply chain

Tactical Risks – link both Strategic and Operational risks, and can impact on delivery of annual/medium term programmes

- Impact of weather on programme delivery
- Local political pressures
- Impact of choice of level of service
- Skills shortage
- Levels of service

Risk and Opportunity Rainbow



Key Risk: Funding Cuts

Funding for expenditure on highway assets comes from either revenue or capital budgets. Structural maintenance and improvement/replacement works are funded from capital. Minor repairs and routine maintenance are funded from revenue. Many of the levels of service stated in this document and the Strategic Asset Management Plan are based on receiving the current level of revenue funding. Continued increases in pressure on the Council's revenue funds from other areas (Adult Social Care etc) threaten the current levels of service.

Key Risk: Aging Infrastructure

The highway network that we maintain has evolved over centuries. Road building programmes through periods of the 20th century, particularly the 60's 70's and 80's has led to particular groups of assets reaching a critical age/condition all at one time. For example, concrete street lighting columns which were widely installed in the 60's and 70's have reached, and exceeded their anticipated life span. Part of lifecycle planning includes identifying the level of funding required to maintain the status quo for condition of each asset. Over the next few years, public finances are going to be limited and it is likely that the Capital programme allocation will not be sufficient to meet the required standstill budget. The current backlog for key assets is identified as;

- Carriageways £86m
- Streetlights – 38% exceed 40 years old
- Structures – 5% do not meet the current loading requirement, and 20% are in poor/very poor condition

Key Risk: Future Demand

One of the key risk management areas for a highway network is in assessing the future demands on the network by all users. The carriageway and other network assets should enable the "free passage of vehicles". With any network this is not always satisfied; this could be due to accidents or other incidents and maintenance, in addition network failures may also be reasons for impairing traffic. The network could also have insufficient capacity.

There is a need to plan and develop the network for future growth, needs and demands; these may include;

- Network capacity sufficient with the minimum of delay and congestion
- Providing a network that is safe and reliable for all vehicles, including public transport and goods vehicles
- Providing access to all users, including people with disabilities
- Provide a network that will support urban renewal and provide benefit to the community by attracting new business
- Provide a network that will enhance the community by providing routes for employment, education, shopping, leisure, recreation and emergency access requirements
- Provide a network with low environmental impact

- Network design and performance suitable for usage and designed to provide an effective whole life cost
- On and off street parking suitable for needs of residents, businesses and visitors

Key Risk: Climate Change

Climate change is on the agenda for the now and the future; the impact is uncertain but this is a key risk management area which needs to be considered. Assessing the likely impacts of climate change and how to respond is therefore essential, particularly as many transport assets have a long life.

A likely outcome of climate change is more frequent, extreme weather events. We need to consider this in the design of new/replacement assets, and be aware of the impact of more extreme weather on the condition of existing assets. There is more detail of this in [Chapter 10 – Climate Change](#).

We also need to consider how we can mitigate the effect our highways maintenance activities can have, reducing our carbon footprint and energy usage, both in material and treatment selection.

Key Risk: Network Resilience

Transport assets have a wider social value above the Gross or Depreciated Replacement Costs. This can take various forms: - additional costs to the economy, transport using longer routes, the closure of businesses through loss of custom, the associated loss of jobs, the social impact of people having less spending power etc. Recent severe weather events across the country have highlighted the susceptibility of an aging transport infrastructure.

Within Gloucestershire there are specific parts of the transport network whereby loss of those parts would have a greater significance due to the lack of easy alternative routes. Limited crossings of the Rivers Severn and Wye and potential landslip sites on major route through the Stroud Valleys such as the A46 make these key routes vulnerable, and loss of key routes could create significant difficulties for local communities.